



Montana Fish, Wildlife & Parks

Crucial Areas Assessment



NATIVE GAME SPECIES

Prairie Grouse Habitat

SUMMARY: This layer depicts the relative value of areas based upon the specific habitat requirements Sharp-tailed grouse and sage-grouse. Values are cumulative, but it is important to realize that an area with a lower cumulative value can still contain high value habitat for just one species.

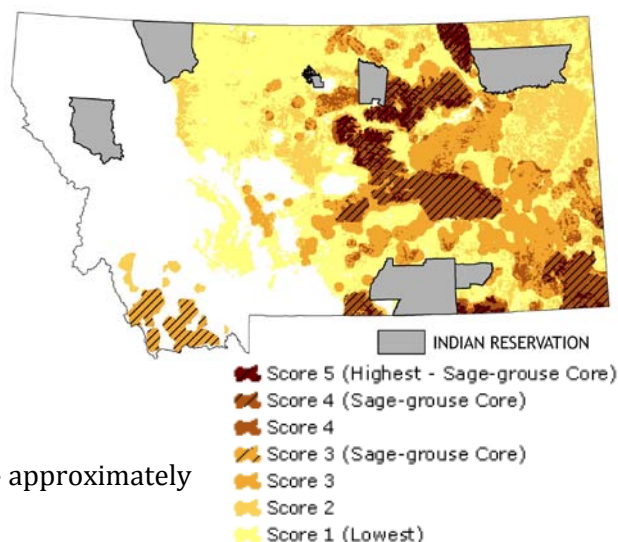
MEASUREMENT UNIT: Public land survey sections - approximately one square mile.

MAPPING CONSIDERATIONS: Indian reservations and national parks not evaluated due to lack of data.

DATA SOURCE(S) / QUALITY:

Prairie Grouse: *Metric Evaluated:* Core habitat areas, lek areas, and habitat suitability. *Species:* sage-grouse, sharp-tail Grouse. *Data layers:* sage-grouse and sharp-tail grouse lek locations and observations collected via ground and aerial surveys by FWP and Bureau of Land Management

DATA SOURCES	
<input checked="" type="checkbox"/>	Survey data – counts or estimates
<input checked="" type="checkbox"/>	Survey data – categorical (e.g. presence/absence)
<input checked="" type="checkbox"/>	Expert opinion based on observation
DATA EXTRAPOLATION TECHNIQUE USED	
<input type="checkbox"/>	None
<input type="checkbox"/>	Modeling of habitat-species associations (deductive)
<input checked="" type="checkbox"/>	Statistical modeling (inductive)
<input type="checkbox"/>	Extrapolation to habitat unit (e.g. stream section)
<input checked="" type="checkbox"/>	Extrapolation based on expert opinion



biologists – maintained in FWP sage-grouse database; Sage-grouse core areas – developed and maintained by FWP with input from Bureau of Land Management. Publicly available layer based expert knowledge review of sage-grouse habitat suitability model using lek locations and limited to areas of highest male density. Sharp-tail grouse habitat suitability model developed using lek locations and reviewed by FWP biologists. Resolution is 90 meters.

METHODS: Prairie grouse habitat was assigned 3 points to sage-grouse core areas and outside of core areas, 2 points were assigned to sage-grouse lek areas. Two points were assigned to highly suitable sharp-tail grouse habitat and 1 point to moderately suitable sharp-tail grouse habitat. In areas with species overlap, values were cumulative to a maximum value of 5 points. Values were only calculated in prairie areas where prairie grouse were expected. The contribution to the overall possible terrestrial game score for each section was only considered in these prairie areas. Thus in western forests, the total possible score for a section only included forest carnivores, big game winter habitat, and bighorn sheep/mountain goat. The final summed value was rescaled to 0 to 1 before being combined with the other species categories.



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FINAL CATEGORIZATION: The resulting scores ranged from 0 to 5. Percentage of land area in each class is shown in the table.

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CATEGORY	PERCENT OF STATE
SCORE 5 (Highest)	2.6 %
SCORE 4	9.3 %
SCORE 3	14.3 %
SCORE 2	11.5 %
SCORE 1(Lowest)	29.7 %